Current Water Conditions in Massachusetts
February 12, 2009

dcr Massachusetts

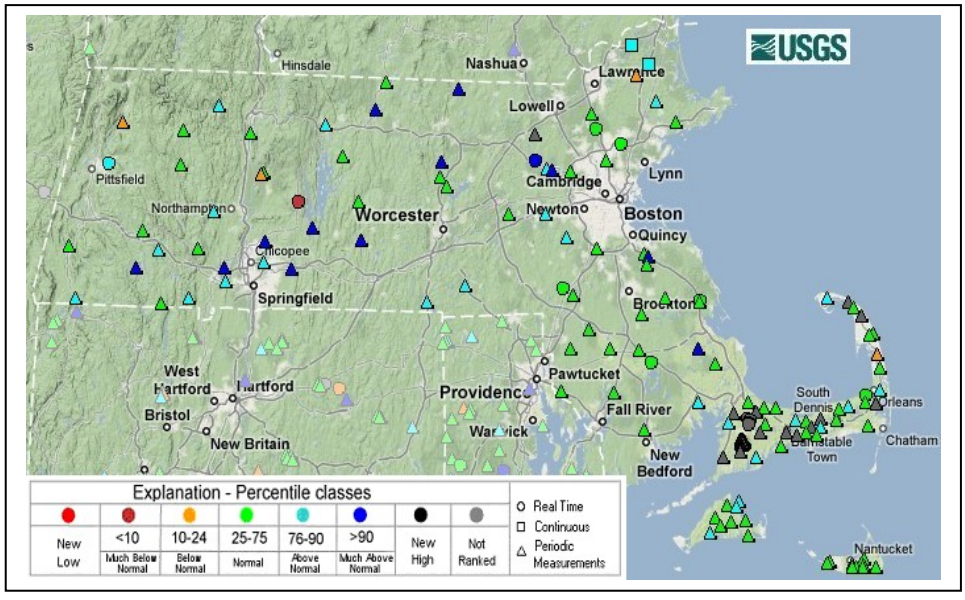
- January precipitation was near normal
- January streamflows were normal and above normal
- January ground-water levels were normal and above normal
- January reservoir levels were above normal

Precipitation Conditions

January state-wide precipitation equaled an estimated 3.88 inches, which is about 106 percent of the long-term average for January. The regions of Massachusetts received between 93 percent (Central) and 122 percent (Southeast and Western) of average precipitation during January. The weather during the month was characterized by 5 to 9, moderate to minor and fairly evenly spaced precipitation events. With the exception of one storm, precipitation was almost all snow at inland locations and both rain and snow events in southeastern and on the Cape and the Islands of Massachusetts. January was ranked as the 33rd wettest in the last 116 years. February precipitation to date has ranged from 0.1 to 0.5 inches which is below normal for the period.
A table of January 2009 estimated precipitation statistics, based on precipitation data from the Department of Conservation and Recreation and National Weather Service precipitation monitoring networks is attached. A map at the back of this report shows the distribution of January total rainfall in Massachusetts and adjacent areas of New England.

Ground Water Levels

Ground-water levels reported by the United States Geological Survey (USGS) at the end of January 2009 generally were normal across about 60 percent of the State. Areas of above and much above normal levels were located in the south central, north central, and northeast areas of MA. The USGS assessment of ground-water levels is based on 124 wells in Massachusetts and Rhode Island with 10 or more years of record. Ground water and surface water conditions in MA drought regions are shown in a table at the end of this report.

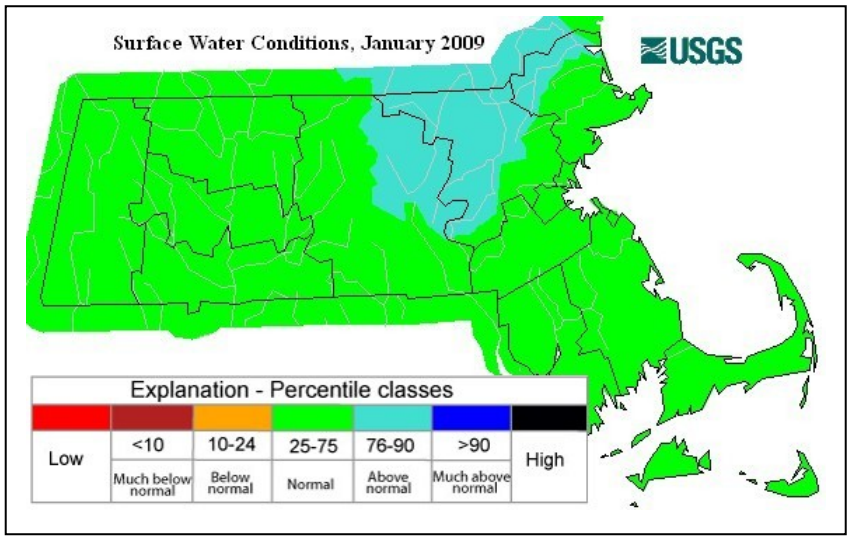


The USGS Ground Water Conditions Statement for the end of January 2009 can be viewed at the web site: http://ma.water.usgs.gov/water/water_g.htm

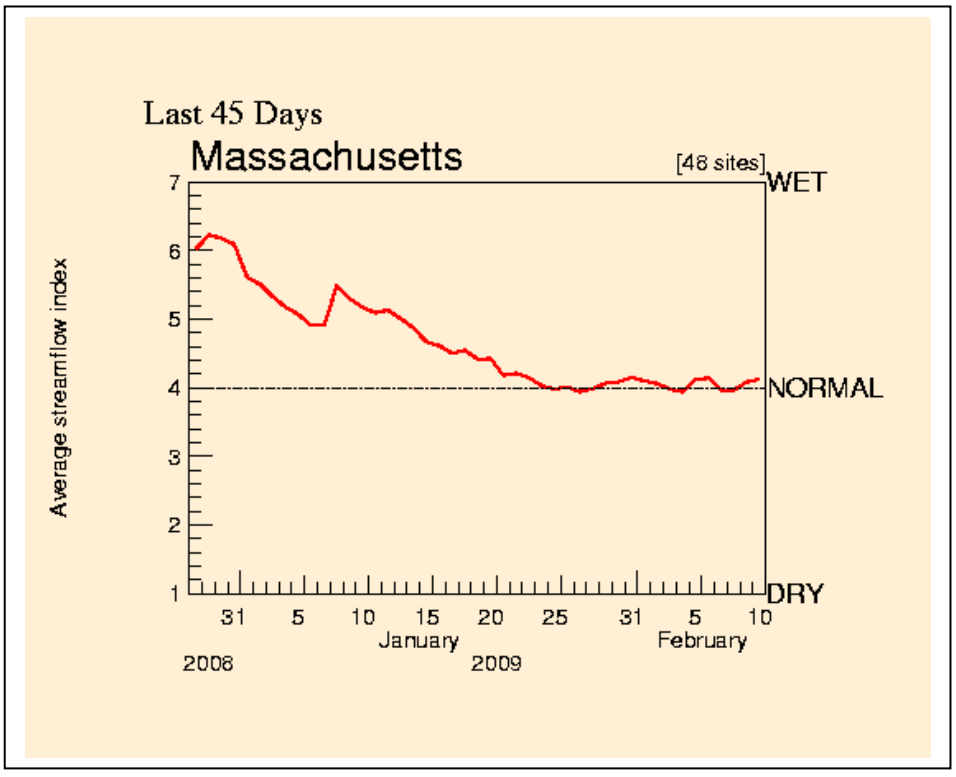
Stream Flow

During January 2009 stream flows that are monitored by the Commonwealth of Massachusetts and United States Geological Survey (USGS) cooperative stream gaging program were mostly normal (green areas on map). Stream flows were above normal (light blue area on map) in the Nashua, Sudbury, Assabet, and Concord river basins located in north central and northeastern Massachusetts.

The graph below depicts a composite daily streamflow relative to normal streamflow for Massachusetts for the period of December 27, 2008 to February 9, 2009. In general above normal State-wide streamflow at the beginning of January declined to near normal at the end of the month and remained near normal during early February. The graph is a composite of 48 real time gages across the state with a long period of record.



Additional information on streamflow is available from the USGS web page:
http://ma.water.usgs.gov/water/water_s.htm



KEY:

1 = New record low for day
2 = < 10th percentile
3 = 10th – 24th percentile
4 = 25th – 74th percentile
5 = 75th – 89th percentile
6 = ≥ 90th percentile
7 = New record high for day

Water Supply Reservoir Levels

Surface water reservoir percent full values for water supply sources provided by water suppliers are listed below. The reservoir percent full values listed are for the end of January and are reported to be generally above normal for this time of year.

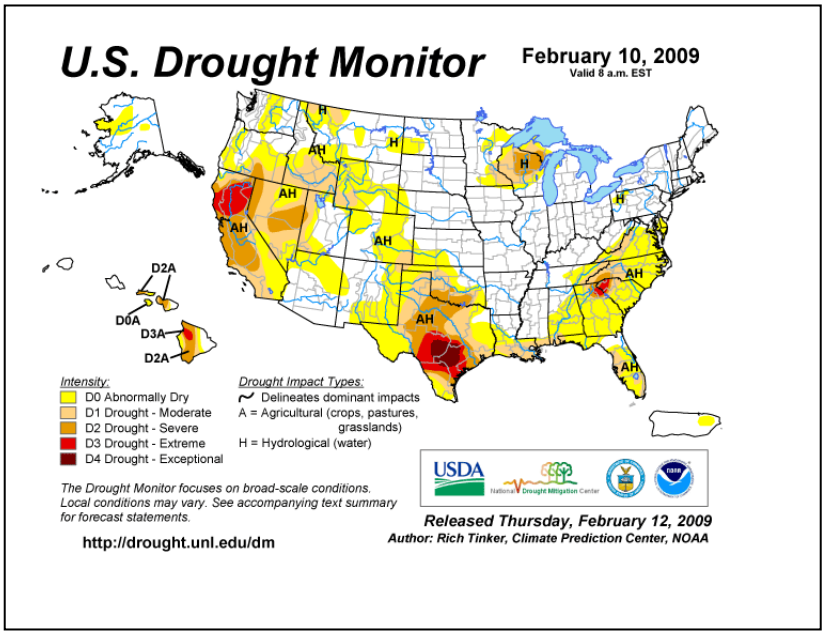
January /February 2009 Massachusetts Reservoir Status

Reservoir/City or Town	Percent Full	Reservoir/City or Town	Percent Full
Quabbin	101.1	Beverly/Salem	97.5
Worcester	101	Lynn	73.2
Cobble Mt./ Springfield	92	Taunton/New Bedford/Assawompsett	97.6

Note: N.A. Indicates data not available for this report

Drought Indices/Forecasts

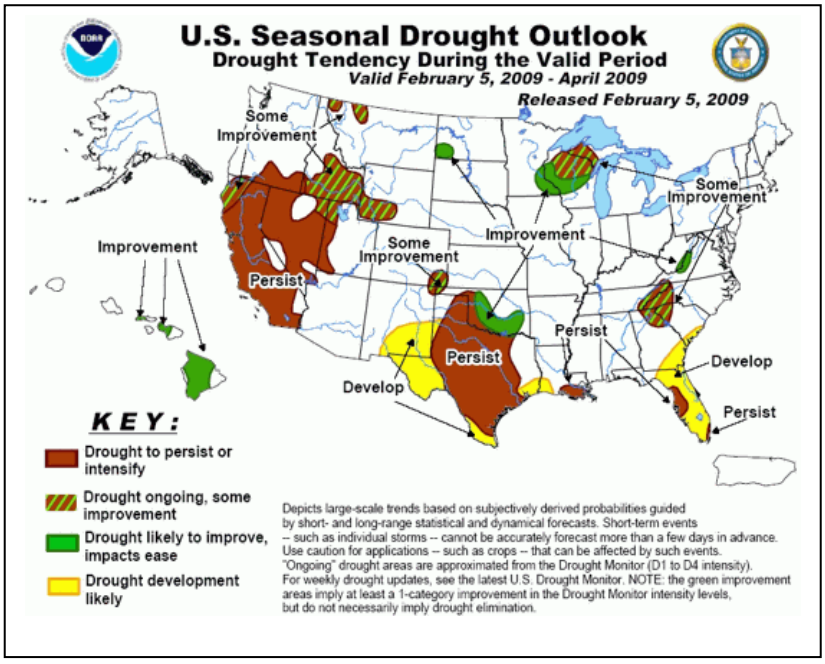
The National Drought Mitigation Center's (NDMC's) February 10, 2009 Drought Monitor Map shown at right indicates no drought conditions in Massachusetts or New England.



Standardized Precipitation Index:

The Western Regional Climate Center's (Desert Research Institute, University and Community College System of Nevada) 1, 3, 6, and 12-Month Standardized Precipitation Index through the end of January show a range of conditions ranging from moderately wet/normal (1-month) to extremely wet/very wet (12-months) across Massachusetts.

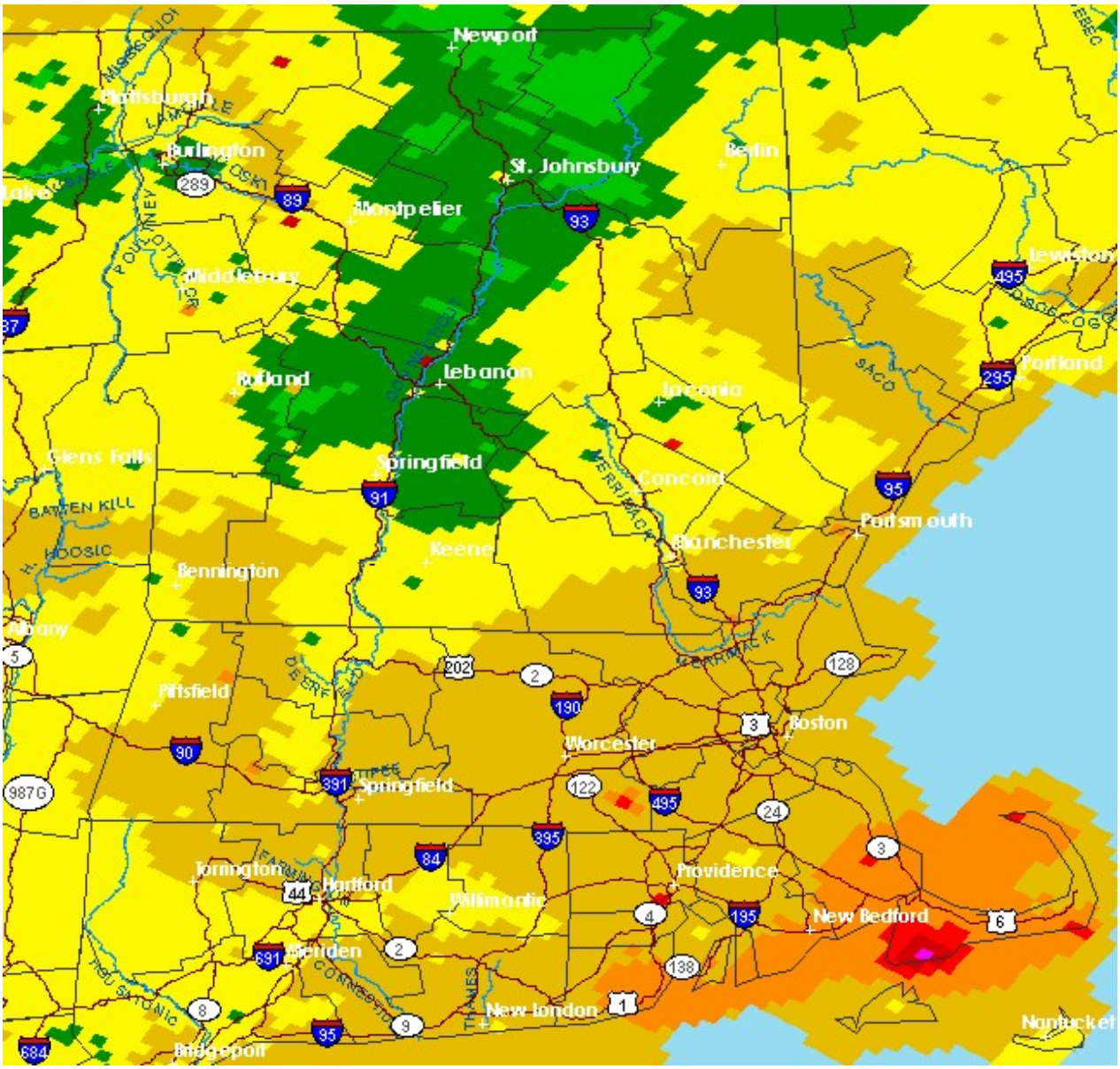
NWS/NOAA's Climate Prediction Center: The U.S. seasonal Drought Outlook dated February 5, 2009 predicts normal conditions for Massachusetts through April 2009.



Extended Forecasts

Following today's passage of a cold front the weather should be fair and seasonally cold into at least early next week. There is a small probability of a low passing south of New England being close enough to provide a brief period of light precipitation Saturday into Sunday. The National Weather Service Climate Prediction Center's extended 6-10 day forecast predicts below normal temperatures and normal rainfall. The 8-14 day forecast is for below normal temperatures and normal rainfall. The 1-month forecast is for normal temperature and above normal rainfall.

The NWS Climate Prediction Information can be found at http://www.cpc.noaa.gov/index.php



http://www.srh.noaa.gov/rfcshare/precip_analysis_new.php

TOTAL RAINFALL
JANUARY 2009

GENERAL WATER CONDITIONS IN MASSACHUSETTS - JANUARY 2009
EOEEA and MEMA DROUGHT MANAGEMENT PLAN REGIONS
(link to Massachusetts regions – source MADCR)

Massachusetts Regions	Surface-Water Conditions	Ground-Water Conditions
Cape and Islands	normal	normal
Southeast	normal	normal
Northeast	above normal	above normal
Central	normal	above normal
Connecticut River	normal	above normal
Western	normal	above normal

Note: Surface- and ground-water conditions for individual streamflow-gaging stations and wells may differ from general conditions.

This report was prepared by the Massachusetts Department of Conservation and Recreation. Data were obtained from the sources described in the report and June be preliminary in nature. Additional information, previous and future water conditions reports can be found on our web site: http://www.mass.gov/dcr/waterSupply/rainfall/